

REMARKS

Claims 1-19 are pending in the application. Claims 3-6 and 11-16 have been withdrawn from consideration. Claims 1, 2, 18 and 19 have been allowed. Claims 7-8 were rejected under 35 U.S.C. § 103 over Nobushi in view of Shimada ('122). Claims 9 and 10 were rejected under 35 U.S.C. § 103 over Nobushi, in view of Shimada ('122) and Shimada ('522). Claim 17 was rejected under 35 U.S.C. § 102(e) over Shimada ('522). In light of the above amendments and below remarks, reconsideration of the rejection of claims 7-10 and 17 is respectfully requested.

In the Final Office Action dated January 5, 2004, claims 1-2, 18 and 19 were allowed. Applicants gratefully acknowledge the allowance of these claims.

Claims 7 and 8 were rejected as obvious over Nobushi in view of Shimada ('122). Applicant's respectfully traverse this rejection.

Claim 7 expressly requires that "the sacrificial layer [has] different etching characteristics than those of said substrate." Neither Nobushi nor Shimada '122 teach or suggest this limitation of claim 7. Nobushi discloses forming probes on a film 3' formed on a substrate 2, and peeling off part of the film and substrate (Fig. 8 and 9). If the portions of the film 3' and the substrate to be later removed are considered to be the claimed sacrificial film, Applicants respectfully point out that film 3' has the same etching characteristics as the substrate. Therefore, Nobushi does not contain any disclosure nor suggestion to remove by etching part of a sacrificial film that has different etching characteristics from the substrate.

The Final Office Action admitted that Nobushi does not teach or suggest etching the sacrificial layer so that the leads include a portion supported by the substrate and a portion unsupported and extending over the edge of the substrate. To cure this deficiency in Nobushi, the Final Office Action looks to the teachings of Shimada and it's light shielding layer 6b (see Figs. 5A-6F and cols. 8 and 9 of Shimada). Applicants respectfully disagree that

Shimada's treatment of layer 6b teaches anything with respect to the method of claim 7. As shown in Figures 5E and 6B and as explained at col. 9, lines 3-12, the gold in light shielding layer 6b and the gold in light shielding layer 17 form a metallic bond so that substrate 1 can be peeled away thus transferring the layer 6a, waveguide 5 and layer 6b to substrate 10. Once layer 6b has been transferred to substrate 10, no further etching of this layer 6b occurs.

Applicants therefore respectfully submit that Shimada's teaching with respect to its bonding layer 6b, which is not further etched, cannot read on Applicants' claimed process of "etching said sacrificial layer so that said leads include a supported portion located on said substrate and an unsupported portion extending over at least one edge of said substrate."

Shimada '122 in Fig. 6F discloses a final state in which part of the mask 11 is removed and another part of the mask 11 remains, and one end of waveguide 5 is supported on the remaining mask 11 working as a base. The other end of the waveguide 5 projects over the end of the base. The mask 11 was formed to cover the substrate 10, and the waveguide 5 is formed thereon. Part of the mask 11 is left as a base, and other portions of the mask 11 are removed by etching. It can be read that the portions of the mask 11 that are removed correspond to the claimed sacrificial film. In this case though, the remaining portion of the mask 11 working as a base (substrate) and the portion of the mask 11 that are etched are made of the same material ( $\text{SiO}_2$ ) and have the same characteristics, thus not meeting the limitation of claim 7 of "the sacrificial layer having different etching characteristics than those of said substrate."

As the combination of Nobushi and Shimada '122 do not read on the process as explicitly recited in independent claim 7, withdrawal of the rejection of claims 7 and 8 on the combination of these references is respectfully rejected.

Claims 9 and 10 were rejected as being obvious over Nobushi in view of Shimada ('122) further in view of Shimada ('522). As claims 9 and 10 ultimately depend from independent claim 7, Applicants rely on the arguments for patentability of independent claim

7 as discussed above. Shimada '522 does not cure the deficiencies as discussed above with respect to Nobushi and Shimada '122. Furthermore, claim 9 requires that the "sacrificial layer [has] a top surface co-planar with that of the substrate in said depression." Shimada '522 discloses forming a sacrificial layer 35 on a substrate 37, forming a depression 25, and removing part of the substrate. Unlike the process explicitly recited in claim 9, though, the sacrificial layer in Shimada '522 does not bury the depression to have a co-planar top surface with the substrate. Withdrawal of the rejection of claims 9 and 10 is therefore respectfully requested.

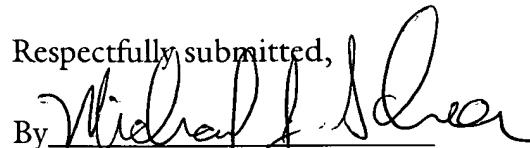
Claim 17 was rejected as being anticipated by Shimada '522. Claim 17 requires "forming a sacrificial layer having a top surface which is contiguous to a top surface of the substrate" As discussed above, Shimada '522 discloses forming a sacrificial layer 35 on a substrate 37, forming a depression 25, and removing part of the substrate. Unlike the process explicitly recited in claim 17, though, the sacrificial layer in Shimada '522 does not bury the depression to have a top surface co-planar with the substrate. Withdrawal of the rejection of claim 17 is therefore respectfully requested.

As to an administrative matter, Applicants enclose herewith the stamped postcard evidencing that Applicants have both filed a claim for priority and submitted the priority documents in the present case. It is requested that the Examiner acknowledge the claim for priority and the filing of the priority document.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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